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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,042	04/05/2001	Norman S. Martucci	0153.00075	4862

7590

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EXAMINER

HOOK, JAMES F

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,042

Applicant(s)

MARTUCCI ET AL.

Examiner

James F. Hook

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004 and 12 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5-9, 13, 14, and 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Powell. The patent to Powell discloses the recited hose assembly and method of forming it comprising an inner layer 14 of PTFE a known fluorocarbon material and other materials, a reinforcement layer 30 made up of different fibers including aramid fibers, where the outer layer 40, which can be made of polyamides, of which nylon 6 is listed elsewhere as the types of polyamides used to make layers of the hose, can be extruded over and then embedded in the reinforcement layer, or other methods such as spray coating, dip coating, cross head or coextrusion, or spirally wrapped (col. 7, lines 42-56), and where an adhesive can be used with the fibers to adhere them to the hose, and where a layer of the hose can be provided with carbon black to make it electrically conductive, where the hose in Powell is made of the same types of materials set forth in applicants application which inherently would be capable of passing volumetric and whip tests especially when no limitations are made on the material to meet specific requirements of these tests, and such is an inherent property

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of the materials being used which would pass the same tests as applicants due to the same materials being used, where Powell lists the materials as being chemical resistant and inherently these materials also are resistant to heat degradation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, 12-14, 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne. The patent to King discloses the recited hose assembly comprising a tubular first layer 12 made of a polymeric material resistant to chemical and heat degradation, which can be provided with carbon black 16 to dissipate electrical charge, a jacket layer 11 disposed about the inner layer, and at least one aramid fiber braided layer 13 disposed between the inner and jacket layers where the use of an aramid fiber layer will allow the layer to be "capable" of passing tests due to the inherent properties of the fibers being used, where glass fibers also can be used in combination with the aramid fibers, where the inner and jacket layers can be formed of a fluorocarbon material such as PTFE, and a coupling means 30 can be provided on the hose ends. The patent to King also states that the outer layer 14 holds the fabric layer in place, and that the layer adds abrasion resistance. Layer 14 is also described as a coating that coats the yarns, therefore it is considered to be a layer

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formed over the yarn layer. The patent to King discloses all of the recited structure with the exception of forming the outer layer by extruding it. The patent to Horne discloses the recited hose assembly comprising an inner layer 2, a reinforcement layer 3 made up of different fibers where the outer layer 4 can be extruded over and then embedded in the reinforcement layer. It would have been obvious to one skilled in the art to modify the outer layer of King by using an extrusion process to place the layer on the outside of the reinforcement layer and then embed it into the reinforcement layer as suggested by Horne as such would be an easier process to use without requiring thinning of the polymer layer for application thereby reducing costs and smoothing the outer layer for aesthetic purposes.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of Nie. The patent to King as modified discloses all of the recited structure with the exception of forming the polymeric first layer of a polyketone. The patent to Nie discloses that inner tube layers 14 can be formed of polyketones when desired to meet the environmental needs of the hose to resist permeation of specific materials to be carried by the hose. It would have been obvious to one skilled in the art to modify the inner layer in King as modified to be formed of a polyketone material to meet environmental needs of the user, as polyketones have specific uses for materials being carried by the hose as suggested by Nie.

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Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of Martucci (527). The patent to King as modified discloses all of the recited structure with the exception of forming the jacket of polyamide. The patent to Martucci discloses the recited hose assembly comprising an inner layer 12 provided with a carbon black strip 16, a reinforcement woven layer 26, where a jacket layer 14 can be extruded over the reinforcement and inner layers, and can be formed of polyamides including nylon 6 and others. It would have been obvious to one skilled in the art to modify the jacket layer in King as modified to form the outer layer of polyamides such as nylon 6 as such is a known material that is resistant to abrasion and damage as suggested by Martucci.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of Martucci (084). The patent to King as modified discloses all of the recited structure with the exception of forming the inner layer of expanded fluoropolymers. The patent to Martucci discloses the recited hose assembly comprising an inner layer 116 which can be formed of expanded or foamed fluoropolymers such as PTFE, where reinforcements 121 are provided over the foamed layer, and end couplings 130 are also provided. It would have been obvious to one skilled in the art to modify the inner layer of King as modified by forming the layer of a foamed material as such is known in the art to form the inner layer of a foamed fluoropolymer to allow for easier attachment of couplings at the end as suggested by Martucci.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of Kutnyak. The patent to King as modified discloses all of the recited method of forming the hose assembly with the exception of dipping the tube in an adhesive before putting the reinforcement aramid layer on the inner tube. The patent to Kutnyak discloses the recited method of forming a hose assembly comprising providing an inner layer 12, and dipping the layer in an adhesive before applying a reinforcement layer 13 over the inner layer to adhere the reinforcement to the inner tube. It would have been obvious to one skilled in the art to modify the method of forming the tube in King as modified by providing a step of dipping the inner tube in adhesive before applying the reinforcement layer to provide better connection of the reinforcement to the inner layer to prevent delamination as suggested by Kutnyak.

Claims 1-3, 5-9, 12-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Powell (988). The patent to King discloses the recited hose assembly comprising a tubular first layer 12 made of a polymeric material resistant to chemical and heat degradation, which can be provided with carbon black 16 to dissipate electrical charge, a jacket layer 11 disposed about the inner layer, and at least one aramid fiber braided layer 13 disposed between the inner and jacket layers where the use of an aramid fiber layer will allow the layer to be "capable" of passing tests due to the inherent properties of the fibers being used, where glass fibers also can be used in combination with the aramid fibers, where the inner and jacket layers can be formed of a fluorocarbon material such as PTFE, and a coupling means 30 can be

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provided on the hose ends. The patent to King also states that the outer layer 14 holds the fabric layer in place, and that the layer adds abrasion resistance. Layer 14 is also described as a coating that coats the yarns, therefore it is considered to be a layer formed over the yarn layer. The patent to King discloses all of the recited structure with the exception of forming the outer layer by extruding it, forming the jacket of polyamide including nylon 6, and dipping the tube in an adhesive before putting the reinforcement aramid layer on the inner tube. The patent to Powell discloses the recited hose assembly comprising an inner layer 14 of PTFE and other materials, a reinforcement layer 30 made up of different fibers where the outer layer 40, which can be made of polyamides, of which nylon 6 is listed elsewhere as the types of polyamides used to make layers of the hose, can be extruded over and then embedded in the reinforcement layer, or other methods such as spray coating, dip coating, cross head or coextrusion, or spirally wrapped (col. 7, lines 42-56), and where an adhesive can be used with the fibers to adhere them to the hose. It would have been obvious to one skilled in the art to modify the outer layer of King by using an extrusion process to place the layer on the outside of the reinforcement layer and then embed it into the reinforcement layer as suggested by Powell as such would be an easier process to use without requiring thinning of the polymer layer for application thereby reducing costs and smoothing the outer layer for aesthetic purposes, and such is an equivalent method used as suggested by Powell, to modify the outer layer to be made of polyamides such as nylon 6 as such is a known equivalent material used for protective jackets where such is a cheaper material, and to provide adhesive coating to adhere the fibers to the inner and outer

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layers to help prevent elongation as suggested by Powell where such would prevent premature failure thereby saving money.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Powell as applied to claims 1-3, 5-9, 12-14, and 16-19 above, and further in view of Nie. The patent to King as modified discloses all of the recited structure with the exception of forming the polymeric first layer of a polyketone. The patent to Nie discloses that inner tube layers 14 can be formed of polyketones when desired to meet the environmental needs of the hose to resist permeation of specific materials to be carried by the hose. It would have been obvious to one skilled in the art to modify the inner layer in King as modified to be formed of a polyketone material to meet environmental needs of the user, as polyketones have specific uses for materials being carried by the hose as suggested by Nie.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Powell as applied to claims 1-3, 5-9, 12-14, and 16-19 above, and further in view of Martucci (084). The patent to King as modified discloses all of the recited structure with the exception of forming the inner layer of expanded fluoropolymers. The patent to Martucci discloses the recited hose assembly comprising an inner layer 116 which can be formed of expanded or foamed fluoropolymers such as PTFE, where reinforcements 121 are provided over the foamed layer, and end couplings 130 are also provided. It would have been obvious to one skilled in the art to modify the inner layer of King as modified by forming the layer of a foamed material as

such is known in the art to form the inner layer of a foamed fluoropolymer to allow for easier attachment of couplings at the end as suggested by Martucci.

Response to Arguments

Applicant's arguments filed December 12, 2002 and August 23, 2004 have been fully considered but they are not persuasive. With respect to the argument that it would not be obvious that a spray method of forming the outer layer could be replaced by an extrusion method, such is not persuasive when it is old and well known in the art that these processes are equivalent ways to dispose an outer layer over a braided layer, see the patent to Powell for reference proving that such is old and known in the art. A rejection is also provided using the reference as Powell to teach the equivalent method also. With respect to the King teachings, the coating layer of King is there to protect the fibers as well as attach them to the outer surface of the inner layer (see col. 4, lines 24-28), by preventing wear, where such coats the fibers and therefore would have to include some amount outside of the fiber regardless of whether such is kept to a small amount. The combination with Horne further teaches a method to dispose the outer layer over the fibers to hold them in place on the outer tube which provides a smoother finish and reduces costs over other methods. Therefore, the rejection is considered proper and the motivation to combine set forth in the patents and the fact that the two are equivalent in nature. With respect to the arguments directed toward the whip and volumetric test language, it is considered inherent that any material would be capable of meeting such tests when there are no limits set forth for the materials to meet, therefore, even the smallest amount required would pass a test with a low set

requirement, with regards to such passing tests better than standard braided layers, such is more detailed than the claim language, however, the layers of the base references have the same reinforced multilayer construction as is claimed and inherently would meet the same types of tests with the same outcome with no claimed difference in structure. With respect to the combination of Nie, Martucci (527), Martucci (084) and Kutnyak with the King reference as modified, there are no further arguments presented toward the combination of these references with the base reference other than the arguments set forth against the original combination of King and Horne, and due to the fact that such arguments are not persuasive, the rejection under further modification by these references is not in question, and considered that the applicant does not find fault with the applicability of these combinations with the base reference.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Washkewicz (178 and 262) disclosing state of the art reinforced hoses.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

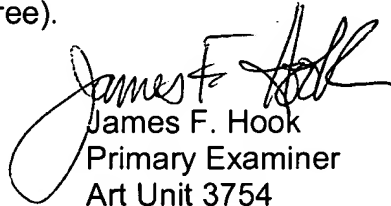
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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James F. Hook
Primary Examiner
Art Unit 3754

JFH